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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,285

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08/18/2009

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EXAMINER

HOLDER, ANNER N

ART UNIT

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2621

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,285	<b>Applicant(s)</b> SETTON ET AL.	
	<b>Examiner</b> ANNER HOLDER	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/03/09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed 06/03/09 have been fully considered but they are not persuasive. As to Applicant's arguments Examiner respectfully disagrees. Regarding 35 USC 101 rejection - ¶ 0074 and 0076 the program or code is embodied in a carrier wave, Is this not a storage medium since the signal has the information (program or code) embodied (stored) therein. The 35 USC 101 rejection applies until the non-statutory category is removed. Apostolopoulos teaches and fairly suggest a receiver [fig. 1 (124) and fig.11] and the restart at a restart condition (loss of packet). [Col. 7 lines 9-37] The state recovery disclosed by Apostolopoulos is a selector for the selection of an output from the received information. [Col. 7 lines 9-37] Caglar discloses a base and enhancement layer where the base layer is the default stream and the enhancement layers are the N sub-streams. The Applicants claims that "N being an integer equal to at least 1", Apostolopoulos taken in combination with Caglar teaches the claimed limitation.

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, references

Apostolopoulos and Caglar are in the same field of endeavor. Apostolopoulos teaches video communication and encoding, Caglar teaches video encoding. In combining the teachings of Apostolopoulos and Caglar video quality is improved.

3. Applicant's arguments see page 9, Specification, filed 06/03/09, with respect to specification objection have been fully considered and are persuasive. The objection of specification has been withdrawn.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 23-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim language does not comply with the requirements of MPEP 2106.01 I and is directed to non-statutory subject matter as follows. Claims 23-33 defines a computer program in the specification as being "stored in a processor or machine accessible medium or transmitted by a computer data signal embodied in a carrier wave or a signal modulated by a carrier, over a transmission medium." [¶ 0074] The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program.

Note:

A “signal” (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a “signal”, the claim as a whole would be non-statutory.

The examiner suggests amending the claim(s) to embody the computer program on “computer-readable medium” and deleting in the specification all sections defining or equivalent, the computer readable medium as a “signal”, “carrier wave”, “transmission medium”, or “paper” which are deemed non-statutory (refer to “note” Above). An article of manufacturing as disclosed by Applicant may include paper or a carrier wave, which is not in compliance with 35 U.S.C. 101. Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apostolopoulos US 7,103,669 B2 in view of Caglar et al. (Caglar) US 2006/0146934 A1.

8. As to claim 1, Apostolopoulos teaches a receiver to receive a default stream and N restart sub-streams from a transmitter over a transmission path, N being an integer equal to at least 1 and selected according to a selection, the default stream being coded by a multiple description (MD) coding, the N restart sub-streams being coded by a predictive coding and sampled according to a sampling pattern, the default and N restart sub-streams corresponding to a media content, at least one of the N restart sub-streams restarting the media content when there is restart condition; [Abstract; Figs. 1-5; Figs. 7; Fig. 11; Col. 9 line 40-46; Col. 3 lines 48-62; Col. 5 lines 50-56; Col. 7 lines 30-58; Col. 7 line 66 – Col. 8 line 4; Col. 11 lines 65 – Col. 12 line 29; Col. 13 lines 59-60] and a selector coupled to the receiver to select a receiving frame from the default stream and one of the N restart sub-streams according to a loss status in the default stream. [Col. 7 lines 9-37]

Apostolopoulos does not explicitly teach a default stream and N sub-stream.

Caglar teaches a default stream and N sub-stream. [figs. 4-9; ¶ 0036; ¶ 0041; ¶ 0043-0045; ¶ 0028; ¶ 0271; ¶ 0125]

It would have been obvious to one of ordinary skill in the art at the time the intervention was made to incorporate the teachings of Caglar with the device of Apostolopoulos allowing for improved coding efficiency and image quality. [¶ 0042; ¶ 0044]

9. As to claim 2, Apostolopoulos (modified by Caglar) teaches a decoder to decode the receiving frame. [Abstract; Figs.1-3; Fig. 9; Fig. 11; Col. 4 lines 5-9; Col. 6 lines 17-20; Col. 7 lines 9-37; Col. 10 lines 42-51; Col. 12 line 66 - Col. 13 line 5; Col. 13 lines 23-29]

10. As to claim 3, Apostolopoulos (modified by Caglar) teaches the selector selects the receiving frame from the one of the N restart sub-streams when the loss status indicates there is a lost frame in the default stream. [Col. 7 lines 9-37; Col. 11 line 65 - Col. 12 line 29]

11. As to claim 4, Apostolopoulos (modified by Caglar) teaches the selector selects the receiving frame from one of the N restart sub-streams, the selected receiving frame being nearest to the lost frame and belonging to same description as the lost frame. [Fig. 5; Col. 10 line 52 – Col. 11 line 3; Fig. 6; Col. 11 line 65 – Col. 12 line 29; Col. 13 lines 57-60; Col. 14 lines 6-11]

12. As to claim 5, Apostolopoulos (modified by Caglar) teaches the selector selects the default stream when the loss status indicates there is no lost frame in the default stream. [Col. 14 lines 6-11; Col. 13 lines 23-29]

13. As to claim 6, Apostolopoulos (modified by Caglar) teaches the selector selects the default stream after the receiving frame from the one of the N restart sub-stream is selected. [Col. 14 lines 6-11; Col. 13 lines 23-29]

14. As to claim 7, Apostolopoulos (modified by Caglar) teaches the selection is based on at least one of bandwidth and loss rate of the transmission path. [Abstract;

15. As to claim 8, Apostolopoulos (modified by Caglar) teaches the sampling pattern is a non-overlapping pattern or having frames from each description of the MD coding. [Col. 4 lines 10-36; Col. 6 line 53 – Col. 7 line 8; Col. 7 line 39-52]

16. As to claim 9, Apostolopoulos teaches limitations of claim 1.

Apostolopoulos does not specifically teach layered representation of the frames according to an encoding rate.

Caglar teaches layered representation of the frames according to an encoding rate. [Figs. 4-9; ¶ 0035; ¶ 0036; ¶ 0039; ¶ 0041-0044; ¶ 0046]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the layered encoding methods of Caglar with the device of Apostolopoulos, allowing for improvements in image quality.

17. As to claim 10, Apostolopoulos (modified by Caglar) teaches a transmitter to transmit a default stream and N restart sub-streams to a plurality of receivers over a plurality of transmission paths, N being an integer equal to at least 1 and selected according to a selection at the receivers, the default stream being coded by a multiple description (MD) coding, the N restart sub-streams being coded by a predictive coding and sampled according to a sampling pattern, the default and N restart sub-streams



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corresponding to a media content, at least one of the N restart sub-streams restarting the media content when there is restart condition. [Abstract; Figs. 1-5; Figs. 7; Fig. 11; Col. 9 line 40-46; Col. 3 lines 48-62; Col. 5 lines 50-56; Col. 7 lines 30-58; Col. 7 line 66 – Col. 8 line 4; Col. 11 lines 65 – Col. 12 line 29; Col. 13 lines 59-60]

18. As to claim 11, Apostolopoulos teaches the limitations of claim 10.

Apostolopoulos does not specifically teach layered representation of the frames according to an encoding rate.

Caglar teaches layered representation of the frames according to an encoding rate. [Figs. 4-9; ¶ 0035; ¶ 0036; ¶ 0039; ¶ 0041-0044; ¶ 0046]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the layered encoding methods of Caglar with the device of Apostolopoulos, allowing for improvements in image quality.

19. As to claim 12, see rejection of claim 1 above.

20. As to claim 13, see rejection of claim 2 above.

21. As to claim 14, see rejection of claim 3 above.

22. As to claim 15, see rejection of claim 4 above.

23. As to claim 16, see rejection of claim 5 above.

24. As to claim 17, see rejection of claim 6 above.

25. As to claim 18, see rejection of claim 7 above.

26. As to claim 19, see rejection of claim 8 above.

27. As to claim 20, see rejection of claim 9 above.

28. As to claim 23, see rejection of claim 1 above.

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- 29. As to claim 24, see rejection of claim 2 above.
- 30. As to claim 25, see rejection of claim 3 above.
- 31. As to claim 26, see rejection of claim 4 above.
- 32. As to claim 27, see rejection of claim 5 above.
- 33. As to claim 28, see rejection of claim 1 above.
- 34. As to claim 29, see rejection of claim 6 above.
- 35. As to claim 30, see rejection of claim 8 above.
- 36. As to claim 31, see rejection of claim 9 above.
- 37. As to claim 32, see rejection of claim 10 above.
- 38. As to claim 33, see rejection of claim 9 above.
- 39. As to claim 34, see rejection of claim 1 above.
- 40. As to claim 35, see rejection of claim 2 above.
- 41. As to claim 36, see rejection of claim 3 above.
- 42. As to claim 37, see rejection of claim 4 above.
- 43. As to claim 38, see rejection of claim 5 above.
- 44. As to claim 39, see rejection of claim 10 above.
- 45. As to claim 40, see rejection of claim 11 above.

***Conclusion***

- 46. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-Th, M-F 8 am - 3 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/

Examiner, Art Unit 2621

/Tung Vo/

Primary Examiner, Art Unit 2621